

REMARKS

Claims 1-13 are rejected. Claim 1 is an independent claim. Claims 1-13 are pending in the application.

Reconsideration of all grounds of rejection in the Office Action, and allowance of all of the pending claims are respectfully requested in light of the following remarks.

Claims 1 – 13 are rejected under 35 USC § 112, first paragraph, as failing to comply with the written description. In addition, claims 1 – 13 stand rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

In response, applicants have amended claim 1 to further clarify the invention, and it now recites, **..left and right cooling parts closing based upon the speed of the drawing optical fiber... and a turbulence generator activated based upon the speed of the drawing optical fiber.**” No new matter has been added.

Support for the amendments to claim 1 can be found at page 10, lines 11 -23 which states that a cooling apparatus employed in the drawing process of an optical fiber that is initially open, disclosing a left and right cooling body. The two halves then close as the drawing velocity of the optical fiber F1 increases to apply tension to the optical fiber F1(200 - 500 mpm). More specifically, the left and right cooling body parts 112 and 114 are joined together to form a single body (“cooling body” 110). As the linear velocity of the tensioned and drawn optical fiber reaches to about 700 - 1000 mpm, the turbulence generators 140 are activated to increase molecular movements of the cooling gases.

Amended claim 1 is now described in such a way as to reasonable convey to one skilled in the relevant art the subject matter which applicants regard as the invention. Therefore, withdrawal of these two grounds for rejection is respectfully requested.

Claims 1-3, 8, 10 - 12 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Linden et al. (US 4,966,615), hereafter "Linden," in view of Sapsford (US 5,568,728) hereafter "Sapsford."

Applicants respectfully traverses the rejection of claim 1 over Linden in view of Sapsford, as instant claim 1, now amended, recites, a cooling apparatus containing a "**left and right cooling parts closing based upon the speed of the drawing optical fiber and a turbulence generator activated based upon the speed of the drawing optical fiber**"

As previously acknowledged by the Office Action, Linden fails to disclose a left and right cooling body. Further, Sapsford also fails to disclose a cooling apparatus containing **left and right cooling parts closing and a turbulence generator activated based upon the speeds of the drawing optical fiber**

As previously stated in the Office Action, Sapsford discloses a left and right cooling body parts separated by a hinged so as to allow the opening up of the interior of the cooler to facilitate the initial threading of the optical fiber through the cooler. (page4, ¶1) (see Sapsford, Col 4, line 19 – 20, FIG.2) Moreover, as can be seen in FIG. 2, Sapsford discloses a handle to lock and unlock a pressure clamp securing and opening the hinged cooling parts. This is in contrast to the structure disclosed in the present invention which is a cooling apparatus constructed so that it can be automatically opened,

closed and controlled (Page 7, line 8 – 11). Sapsford does not disclose a means of opening, closing and controlling the cooling parts or activating a turbulence generator(s) **based upon the speed of the drawing optical fiber**. An individual operator of the drawn tower disclosed in Sapsford must manually manipulate the handle disclosed in FIG. 2 to opening or closing the cooling parts (might not even be prudent (safe) for an operator to control the device when the optical fiber is at drawn speed).

Furthermore, the prior art, either alone or in combination, fails to show or teach a turbulence generator activated **based upon speed of the drawing optical fiber**, as recited in amended claim 1 (Specification, Page 10, line 18 to 19). Therefore, applicants respectfully request the withdrawal of the rejection under 35 U.S.C. 103(a) of base claim 1 based upon the amendments to that claims and the above arguments.

The other claims in this application are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

In regards to the Office Action's argument that speed and closing are methods of use limitations which do not impart any structural limitations the comments regarding the prior arts intended use, applicants respectfully traverse these assertions as base claim 1 as amended, now describes the functional limitation of apparatus claim in the present invention in regards to closing of left and right cooling parts and activating the turbulence generator(s). MPEP §2173.05(g) ("nothing inherently wrong with defining some part of an invention in functional terms.") As can be seen from the above amendments, claim 1

no longer contains indefinite terms "predetermined" and "selectively" as pointed out by the Office Action.

Therefore, reconsideration and withdrawal of this ground for rejection is respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited reference. A notice of Allowance is respectfully requested.

Should the Examiner deem that there are any issues, which may be best, resolved by telephone communication, please contact Applicant's undersigned Attorney at the number listed below.

Respectfully submitted,

Steve Cha
Registration No. 44,069



By: Steve Cha
Attorney for Applicant
Registration No. 44,069

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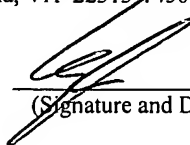
Mail all correspondence to:

Steve Cha, Registration No. 44,069
Cha & Reiter
210 Route 4 East, #103
Paramus, NJ 07652
Tel: 201-226-9245

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Steve Cha, Reg. No. 44,069
(Name of Registered Rep.)


(Signature and Date)